

**REPORT OF  
PHASE I ENVIRONMENTAL SITE ASSESSMENT**

**MARICOPA COUNTY PARCEL 1 (500-02-016S)  
2.45 ACRES OF VACANT LAND  
NORTH OF THE NORTHWEST CORNER OF VAN BUREN ROAD AND  
ELISEO C FELIX JR WAY  
AVONDALE, ARIZONA**

**Prepared for:**

**Maricopa County Risk Management Department  
Environmental Division  
222 North Central Avenue, Suite 1110  
Phoenix, Arizona 85004**

**Prepared by:**

**MACTEC Engineering and Consulting, Inc.  
3630 East Wier Avenue  
Phoenix, Arizona 85040**

**MACTEC Project 4972-04-2138-02**

**February 16, 2005**

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Maricopa County Risk Management Department  
Environmental Division  
222 North Central Avenue, Suite 1110  
Phoenix, Arizona 85004

**Attention:**     **Ms. Rita Neill and**  
                  **Mr. Derrik Spoelman**

**Subject:**       **Report of Phase I Environmental Site Assessment**  
                  **Maricopa County Parcel 1 (500-02-016S)**  
                  **2.45 Acres of Vacant Land**  
                  **North of the Northwest Corner of Van Buren Road and Eliseo C Felix Jr Way**  
                  **Avondale, Arizona**  
                  **MACTEC Project 4972-04-2138-02**

Dear Ms. Neill or Mr. Spoelman:

MACTEC Engineering and Consulting, Inc. (MACTEC), is pleased to submit this report of our Phase I Environmental Site Assessment (ESA) for the property referenced above. The purpose of our services was to characterize the general site and adjacent property conditions relative to environmental concerns and to identify obvious actual and potential environmental concerns.

This report is intended for the use of Maricopa County only. Our services have been performed under mutually agreed upon terms and conditions. If other parties wish to rely on this report, please have them contact us so that a mutual understanding and agreement of the terms and conditions for our services can be established prior to their use of this information.

The findings and recommendations contained herein are based upon the data that was reviewed and documented in this report along with our experience on similar projects. The discovery of any additional information concerning the environmental conditions at the site should be reported to us for our review so that we can reassess potential environmental impacts and modify our recommendations, if necessary.

We appreciate the opportunity to be of service to you. Please call us if you have any questions or if we may be of further service.

Sincerely,  
**MACTEC ENGINEERING AND CONSULTING, INC.**

Patrick Cook  
Project Professional

James N. Clarke, R.G.  
Principal Geologist

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## **EXECUTIVE SUMMARY**

Maricopa County Parcel 1 (500-02-016S)

2.45 Acres of Vacant Land

North of the Northwest Corner of Van Buren Road and Eliseo C. Felix Jr Way

Avondale, Arizona

MACTEC Project 4972-04-2138-02

Maricopa County Risk Management, Environmental Division engaged MACTEC Engineering and Consulting, Inc. (MACTEC) to perform a Phase I Environmental Site Assessment (ESA) of the property referenced above.

This executive summary is presented for convenience only. While the executive summary is an integral part of the report, it should not be used in lieu of reading the entire report including the appendices.

## **PROPERTY AND AREA DESCRIPTION, AND ON-SITE OBSERVATIONS**

The subject property is a rectangular-shaped, approximately 2.45-acre land parcel. The subject property is generally undeveloped land excepting a sewer manway and an approximately 5 cubic yard soil and debris pile that were observed on the subject property near the west central property border and a pad-mounted transformer. No buildings exist on the land parcel making up the subject property.

The property is bound on the north by a fenced storm water retention basin and by a City of Avondale municipal water well. Eliseo C. Felix Jr. Way borders the subject property to the east. Beyond Eliseo C. Felix Jr. Way is undeveloped land and Nina Construction Supply. The property is bound on the south by generally vacant land parcel, Maricopa Assessors parcel no. 500-02-016Y. The property is bound on the west by a large multi-tenant retail development.

## **HISTORICAL REVIEW**

MACTEC's interpretation of historical information indicates that the site was developed as a portion of the Avondale Farm Labor Camp from at least 1920 until at least 1964. MACTEC interpreted aerial photographs, dating from the 1950s until the present, as showing the land generally vacant and with transecting unpaved roadways. MACTEC interprets that the subject property configuration and land use has not significantly changed from the 1960s to the current date (2005).

Surrounding property use to the north of the subject property was identified as undeveloped land from at least 1958 until development with the current retention basin and City of Avondale well site. Land immediately east of the subject property is interpreted to have been as the alignment of Eliseo C. Felix Jr. Way since at least 1958. The historical information indicates that the land immediately east of the roadway has been undeveloped since at least 1958 until 2004, when the northern portion was developed with a commercial business. The land south of the subject property is interpreted to have been developed with numerous structures that appear, based on the size and layout, to be residences from at least 1920 until at least the late 1960s. In the 1979 aerial photograph, the area south of the subject property appears as an asphalt paved lot with vehicles and/or equipment located on the pavement. In the 1989 aerial photograph, the area south of the subject property appears as developed with several structures and an asphalt paved lot with vehicles and/or equipment located on the pavement. The reviewed 1992 aerial photograph showed the subject property as largely vacant land, although the southern portion appears to be paved, with no discernable vehicles/equipment on the pavement. MACTEC did not observe significant changes in the apparent land use in the reviewed aerial photographs dated 2002 and 2004 from the observations made during our site reconnaissance. Property use west of the subject property is

interpreted to have been developed with numerous structures that appear, based on the size and layout, to be residences and a larger central structure of unknown use, associated with a farm labor camp, possibly associated with the nearby agricultural developments from at least 1920. In the 1979 through 1992 aerial photographs, the area west of the subject property appears as an undeveloped lot transected with unpaved trails. The current retail developments have been developed since 2002.

Review of historical information did not indicate ASTM-defined recognized environmental conditions related to the former use of the subject property or on the adjoining properties.

## **REGULATORY REVIEW**

The subject property is not listed on regulatory lists.

Off-site facilities were listed on the regulatory databases within MACTEC's specified search distances. However, based on MACTEC's review of the listed facilities with respect to distance, hydraulic and topographic gradient, regulatory status, and material involved, it is MACTEC's opinion that the off-site regulatory listed facilities have a low potential for adverse environmental impact to the subject property.

## **FINDINGS, CONCLUSIONS AND RECOMMENDATIONS**

Based on the information reviewed, and MACTEC's observations, MACTEC presents the following findings, conclusions and recommendations:

- This assessment has revealed no evidence of recognized environmental conditions in relation to the subject property.

Based on MACTEC's findings and conclusions, MACTEC recommends the following actions:

- No additional environmental assessment with respect to ASTM-defined recognized environmental conditions.

## **1.0 INTRODUCTION**

Maricopa County Risk Management Department – Environmental Division (MCRM) engaged MACTEC Engineering and Consulting, Inc. (MACTEC), to perform a Phase I Environmental Site Assessment (ESA) of a vacant parcel of land identified as Parcel 1 (subject property). The subject property is further identified as Maricopa County Assessor's Parcel 500-02-016S located north of the northwest corner of Van Buren Road and Eliseo C Felix Jr. Way in Avondale, Maricopa County, Arizona. The figures provided with this report illustrate the approximate boundaries of the subject property.

Mr. Patrick Cook, a MACTEC professional experienced in environmental site assessments, performed the site and area reconnaissance during December 2004. Our services were completed in general accordance with MACTEC Proposal PROP04PHOE-156, dated December 16, 2004. The Phase I ESA was authorized by Ms. Rita Neill, MCRM on December 27, 2004, by Maricopa County Purchase Order Number PG05180020004.

## **2.0 PURPOSE, SCOPE AND REPORT FORMAT**

### **2.1 PURPOSE**

The purpose of our services was to identify obvious environmental concerns from practices and activities that have or could have occurred on the subject property or adjacent sites that could potentially contaminate the subject property. No subsurface evaluation was performed as a part of this assessment.

### **2.2 SCOPE OF SERVICES**

The Phase I ESA is a general characterization of environmental concerns based on readily available information and site observations. The assessment was performed in general accordance with ASTM E1527-00 *Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process*. The services provided are summarized below.

1. A qualitative hydrogeologic evaluation of the site and vicinity was performed, using both published topographic maps and area observations, to characterize the area drainage.
2. Selected available historical documents, maps, and aerial photographs were reviewed and interviews with knowledgeable persons were conducted to evaluate present and past land uses.
3. Selected environmental lists published by state and federal agencies were reviewed to determine if the subject property or nearby properties are listed as having a present or past environmental problem, are under investigation, or are regulated by state, federal, or local environmental regulatory agencies.
4. MACTEC performed a site and surrounding area reconnaissance to identify obvious indications of present or past activities that have or could have contaminated the site. The assessment of issues identified as "additional issues" in ASTM E1527-00 such as lead in paint, radon, and lead in drinking water were not performed as part of this assessment.
5. MACTEC performed an on-site limited polychlorinated biphenyl (PCB) survey consisting of a visual reconnaissance for fluid-containing major electrical devices (transformers and capacitor banks). The PCB status of these devices was determined by the presence or absence of labeling. The general condition of these devices was noted, especially evidence of leakage. The limited PCB survey did not include sampling or testing of dielectric fluids.
6. This report was prepared to present our findings, conclusions and recommendations.

Our scope of services did not include sampling of the soil and groundwater at the subject property.



## **2.3 REPORT FORMAT**

Our report format will include four major assessment sections:

- Hydrogeology
- Historical Review
- Regulatory Review
- Site and Area Reconnaissance

Following our assessment sections, our report format will present our findings, conclusions and recommendations.

A statement of interpretive limitations follows the recommendations.

## **2.4 SPECIAL TERMS**

ASTM E 1527-00 defines a “recognized environmental condition” as: “the presence or likely presence of any hazardous substances or petroleum products on a property under conditions that indicate an existing release, a past release, or a material threat of a release of any hazardous substances or petroleum products into structures on the property or into the ground, ground water, or surface water of the property.” The term includes hazardous substances or petroleum products even under conditions in compliance with laws. The term is not intended to include *de minimis* conditions that generally do not present a material risk of harm to public health or the environment and that would not be the subject of an enforcement action if brought to the attention of appropriate governmental agencies.

### 3.0 HYDROGEOLOGY

A consideration of surface and subsurface drainage and geology are of interest since they provide an indication of the direction that contaminants, if present either on or off the subject site, could be transported. It was not the purpose of this study to evaluate the geotechnical conditions of the subject site or to assess the engineering/geological concerns such as foundation conditions, seismic issues, land faulting, or subsidence. MACTEC reviewed the following information regarding the hydrogeology of the site and surrounding area:

- *Soil Survey of Maricopa County, Central Part, Arizona*, United States Department of Agriculture (USDA), Soil Conservation Service (SCS), issued September 1977;
- United States Geological Survey (USGS) *Tolleson, Arizona Quadrangle*, 7.5 minute series (topographic) map, dated 1957, photorevised 1982;
- *Geologic Highway Map of Arizona*, by Arizona Highways, 1998;
- *Geologic Map of Maricopa County, Arizona*, Arizona Bureau of Mines, University of Arizona, 1957;
- Hammet, B. A., and R. L. Herther, *Maps Showing Groundwater Conditions in the Phoenix Active Management Area, Maricopa, Pinal, and Yavapai Counties, Arizona –1992*, State of Arizona Department of Water Resources, Hydrologic Map Series Report Number 27, dated July 1995; and,
- *EDR Radius Map with GeoCheck®*, Environmental Data Resources, Inc. (EDR), Inquiry Number 01335393.2s, dated January 4, 2005.

### 3.1 GEOLOGIC SETTING

Based on the information reviewed by MACTEC, the subject property lies within the southwestern United States' Basin and Range Physiographic Province. Locally, the subject property is within the Salt River Valley. The Salt River Valley is a westward sloping broad alluvial valley bounded by block-faulted mountains. The Salt River Valley consists of a series of structural basins filled with thick sedimentary deposits.

The subject property is located on material eroded from distant highlands and deposited within the Salt River Valley. Geology underlying the subject property is interpreted to include alluvium generally consisting of unconsolidated gravel, sand, silt, and clay. The unconsolidated material may extend hundreds of feet in thickness below the subject property. Crystalline bedrock is interpreted to underlie the alluvial basin fill.

Information provided by EDR indicates that the soils below the subject property are Carrizo Series soils. EDR gathers information from the USDA STATSGO database, which provides generalized soil survey information. However, as described in the referenced United States Department of Agriculture, Soil Conservation Service (SCS) document which includes individual soil survey maps (micro), soil below the subject property may include Laveen Series and Gilman Series soils. The Laveen and Gilman series' soils consist of deep, well-drained soils found on old alluvial fans, stream terraces, and/or valley plains. These soils are formed in mixed alluvium from many different rock types. Permeability is moderate. Runoff is slow.

### **3.2 SURFACE DRAINAGE**

Based on the USGS topographic map referenced above, the subject site elevation sits at an elevation of approximately 980 feet above the National Geodetic Vertical Datum of 1929. The topographic slope (surface gradient) in the site vicinity is interpreted by MACTEC to be down to the south.

Based on MACTEC's on-site observations, MACTEC anticipates that on-site generated surface water will infiltrate into the soil underlying the subject property through the exposed soil surface of the vacant lot.

Runoff originating from the surrounding properties is not anticipated to environmentally adversely impact the subject property due to surrounding grading, block walls located between the adjacent properties and the subject property, and also the north adjacent stormwater retention basin.

MACTEC did not observe indications that surface water runoff originating topographically upslope of the subject property would transport hazardous materials to the subject property. The upslope areas viewed by MACTEC primarily consisted of a City of Avondale well site, vacant land, and an unused asphalt paved parking area.

No surface bodies of water were observed at the subject property or immediately adjacent to the subject property. Based on MACTEC's review of the EDR report described above, the subject property is not located within a 100-year flood plain.

### **3.3 GROUNDWATER**

The groundwater beneath the site is within the Arizona Department of Water Resource's (ADWR) locally designated West Salt River Valley Sub-basin. According to the referenced groundwater report, the depth

to groundwater in the vicinity of Section 2, Township 1 North, Range 1 West of the Gila and Salt River Baseline and Meridian was interpreted by MACTEC to be about 60 feet below the ground surface in 1992. Based on the ADWR document, MACTEC interprets that the groundwater flow direction (gradient) for the primary part of the main aquifer system is generally to the west.

#### 4.0 HISTORICAL REVIEW

MACTEC reviewed selected historical information in order to evaluate the current and historical uses of the site and surrounding properties and to evaluate past or present activities of potential environmental conditions. The ASTM E 1527-00 standard lists the mandatory physical setting sources and specifies that the historical review should be conducted using as many sources as are practically reviewable from the initial development of the subject property or back to 1940, whichever is earlier. To comply with the ASTM standard, a reasonable attempt was made to obtain historical data from as many physical-setting sources and to review historical records from as far in the past as practical. The reference materials listed below are the physical setting and historical sources that were publicly available, obtainable within reasonable time and cost restraints, and practically reviewable as defined in the ASTM standard.

- Aerial photographs, dated 1958, 1964, 1979, 1989, and 1992, provided by EDR in *EDR Aerial Photo Decade Package*, Inquiry Number 1335393.4, dated January 4, 2005;
- Aerial photographs, dated 2002 and 2004 viewed on Maricopa County Assessor's web page [www.maricopa.gov/assessor](http://www.maricopa.gov/assessor);
- USGS Tolleson, Arizona Quadrangle, 7.5 minute series (topographic) map, dated 1957, photorevised 1982;
- Interview with Mr. Tony Chavez, Maricopa County Real Estate, January 2005;
- *Report for Phase II Environmental Site Assessment, Maricopa County Facility, 10<sup>th</sup> Street and Van Buren Street, Avondale, Arizona*, prepared by Thomas-Hartig & Associates, Inc. (THA), dated March 3, 1992;
- *Phase I Environmental Site Assessment, Former Avondale Housing Authority Office, 801 East Taylor Street, Avondale, Arizona, ESA-TAO AV-1, Facility No. 0304*, prepared by AGRA Earth & Environmental, Inc., dated August 2, 2000;
- *Phase I Environmental Site Assessment, Former Southwest Service Center, 936 East Van Buren Street, Avondale, Arizona, ESA-TAO AV-1, Facility No. 0306*, prepared by AGRA Earth & Environmental, Inc. (AGRA), dated August 2, 2000;
- Street Directories dated 1973, 1977, 1982, 1986, 1990, 1994, 1996, 1998, 2000, 2002, and 2003, prepared by South Side Directory Company, Mullin-Kille ConSurvey Directory, Polk's Directory, and/or Cole Directory, viewed at the Arizona Room, Burton-Barr Central Library, Phoenix, Arizona, and;
- Historical Title Report dating to 1938, prepared by All Lands, dated December 17, 2005.

EDR indicated Sanborn fire insurance maps do not cover the subject site or surrounding area.

#### **4.1 PREVIOUS SITE USE**

The USGS topographic map indicates structures were not present on the subject property on the 1957 base map, or on the 1982 photorevised USGS map. However, the maps do indicate the presence of an unpaved road traversing the subject property in a southwest to northeasterly trend.

The Historical Title Report did not reveal obvious names or entities which MACTEC interpreted to be associated with manufacturing facilities, petrochemical facilities, or other obvious chemical storage or disposal facilities. The Historical Title Report and current ownership records indicate that the land title has been held by Maricopa County since 1958. Prior to 1958, land title was held by United States of America Public Housing Administration (1938-1958), and an individual, L.A. Hammond, until 1938. The Historical Title Report reported that no Voluntary Environmental Mitigation Use Restrictions (VEMURs), Declaration of Environmental Use Restrictions (DEURs), Environmental Liens, activity or use limitations, or Arizona Voluntary Remediation Programs have been recorded for the subject property.

The reviewed 1958 and 1964 aerial photographs showed the subject property as developed with several structures. The structures appear to be residences, based on the size and layout. Based on our interview with Mr. Tony Chavez, the structures were associated with a farm labor camp, possibly associated with the nearby agricultural developments. The Historical Title Report presented in AGRA's Phase I Environmental Site Assessment of the Former Avondale Housing Authority identifies the early developments on the subject and west and south adjacent properties as the Avondale Farm Labor Camp from at least 1920. The reviewed 1979 and 1989 aerial photographs showed the subject property as largely vacant land, although the southern portion appears to be paved, with vehicles and/or equipment located on the pavement. The reviewed 1992 aerial photograph showed the subject property as largely vacant land, although the southern portion appears to be paved, with no discernable vehicles/equipment on the pavement. MACTEC did not observe significant changes in the apparent land use in the reviewed aerial photographs dated 2002 and 2004 from the observations made during our site reconnaissance.

The reviewed city street directories dating from 1973 did not list a street address which corresponded to the subject property parcel locations.

#### **4.2 PREVIOUS SURROUNDING SITE USE**

**North:** According to the historical references, undeveloped land was located immediately north of the subject property from at least 1958 until development with the current retention basin and City of Avondale well site since 2000.

**East:** According to the historical references, the alignment of Eliseo C. Felix Jr. Way has been located to the east of the subject property since at least 1958. The historical information indicates that the land immediately east of the roadway has been undeveloped since at least the 1958 until the 2004, when the northern portion was developed with a commercial business.

**South:** According to the historical references, the land located immediately south of the subject property was previously developed with several structures that appear, based on the size and layout, to be residences. Based on our interview with Mr. Tony Chavez, the structures were associated with a farm labor camp, possibly associated with the nearby agricultural developments. The Historical Title Report presented in AGRA's Phase I Environmental Site Assessment of the Former Avondale Housing Authority identifies the early developments on the subject and west and south adjacent properties as the Avondale Farm Labor Camp from at least 1920. In the 1979 aerial photograph, the area south of the subject property appears as an asphalt paved lot with vehicles and/or equipment located on the pavement. In the 1989 aerial photograph, the area south of the subject property appears as developed with several structures and an asphalt paved lot with vehicles and/or equipment located on the pavement. The reviewed 1992 aerial photograph showed the subject property as largely vacant land, although the southern portion appears to be paved, with no discernable vehicles/equipment on the pavement. The structure currently located to the south of the subject property was reportedly constructed in 1992. MACTEC did not observe significant changes in the apparent land use in the reviewed aerial photographs dated 2002 and 2004 from the observations made during our site reconnaissance.

Based on the THA report, the south adjacent property, the former Southwest Service Center, was developed with a maintenance building located adjacent to Van Buren Street and asphalt paved parking and storage areas. Three former underground fuel and oil storage tanks, a fueling island, and a service hydraulic lift were indicated in the area of the site structures on the site plans provided. The report indicated that petroleum hydrocarbon contamination below the applicable cleanup standard was detected beneath one of the USTs during a previous investigation. However, analyses of samples obtained from borings advanced to depths of 25.5 to 30.5 feet below ground did not indicate detectable contamination.

Analyses of samples obtained from borings advanced to depths of 20.5 to 40.5 feet below ground in the area of the hydraulic lift indicated total recoverable hydrocarbon contamination in excess of the Action Level to 25' bgs. Contamination was detected at a concentration below the Action Level at a depth of 30'

bgs. THA recommended the lift and associated contaminated soil be removed or in-situ bioremediation or in-situ encapsulation be employed.

According to AGRA's report on the Southwest Service Center, removed in 1999 and currently developed as the Maricopa County WIC and Integrated Health building, four USTs were removed from the site in 1988 and new tanks replaced into the former tank pits. The report indicates documentation of soil sampling during the 1988 removals was not provided. The report includes a removal report for one waste oil tank dated 1992 and a removal report for two fuel storage tanks dated 1999. The assessment performed during the waste oil tank removal report did not indicate a release had occurred. However, the assessment performed during the fuel oil tank removals indicated a release had occurred in a localized area of the piping. ADEQ issued a closure letter relating to this release dated on November 4, 1999. AGRA also reviewed a soil gas survey report which indicated that tetrachloroethene and 1,1,1-trichloroethane had been detected in soil gas near the former hydraulic lift. AGRA concluded 'the potential presence of these materials to be present is a recognized environmental condition'. Based on the nature of the contaminants, media affected, the hydraulic and topographic gradients, and the distance between the subject property and the USTs and former service building, it is MACTEC's opinion that the former developments pose a low potential for environmental concern to the subject property.

**West:** According to the historical references, the land located immediately west of the subject property was previously developed with numerous structures that appear, based on the size and layout, to be residences and a larger central structure of unknown use. Based on our interview with Mr. Tony Chavez, the structures were associated with a farm labor camp, possibly associated with the nearby agricultural developments. The Historical Title Report presented in AGRA's Phase I Environmental Site Assessment of the Former Avondale Housing Authority identifies the early developments on the west adjacent property as the Avondale Farm Labor Camp from at least 1920. In the 1979 through 1992 aerial photographs, the area west of the subject property appears as an undeveloped lot transected with unpaved trails. MACTEC did not observe significant changes in the apparent land use in the reviewed aerial photographs dated 2002 and 2004 from the observations made during our site reconnaissance.



#### **4.3 PREVIOUS ENVIRONMENTAL REPORTS**

No additional reports relating to the subject property were provided or reviewed.

## **5.0 REGULATORY REVIEW**

MACTEC conducted a review of selected regulatory lists published by the state and federal regulatory agencies and contacted local pollution control agencies to determine if the subject site or nearby properties are listed as having a past or present record of actual or potential environmental impact or are under investigation for an environmental impact. The regulatory information was compiled by Environmental Data Resources, Inc., (EDR). In accordance with ASTM guidelines, MACTEC presents the results of the following environmentally related list searches:

- ASTM-Standard Federal lists (Section 5.1)
- ASTM-Standard State lists (Section 5.2)
- Non-ASTM Federal lists and Non-ASTM State of Arizona-specific lists (Section 5.3)

Locally contacted regulatory agencies are summarized within Section 5.4.

Please note that regulatory listings are limited and include only those sites that are known to the regulatory agencies at the time of publication to be contaminated or in the process of evaluation for potential contamination. A copy of the EDR report is provided in Appendix A. The EDR report includes a description of each regulatory list searched, acronym definitions, a responsible regulatory agency for each regulatory list, limited data for each listed facility, plotted maps indicating listed facility positions with respect to the subject property location, and the calendar dates for which the regulatory lists have been most recently updated and released by the regulatory agencies for general use. The EDR report also summarizes the origin and purpose of each list. The EDR report is subject to EDR's limitations and disclaimers. MACTEC has included (in Section 5.3) only pertinent Non-ASTM lists and EDR Proprietary list search results.

### **5.1 FEDERAL REGULATORY LISTED FACILITIES**

The following narratives summarize the ASTM-Standard Federal List search results.

#### **5.1.1 EPA National Priorities List (NPL)**

The Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) established the Environmental Protection Agency (EPA) National Priorities List (NPL) of federal "Superfund" facilities. These are the contaminated facilities that have been assigned a high ranking, in terms of potential public health effects, by the EPA. The following information was found on the NPL list.

- The subject property does not appear on the NPL.
- No facility listed on the NPL is located within one mile of the subject property.

### **5.1.2 EPA Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS) List**

The EPA Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS) List contains data on potentially hazardous waste facilities that have been reported to the EPA by states, municipalities, private companies and private persons, pursuant to Section 103 of the CERCLA. CERCLIS contains facilities, which are on the NPL or facilities that are in the screening and assessment phase for possible inclusion on the NPL. The following information was found on the CERCLIS list.

- The subject property does not appear on the CERCLIS list.
- No facility listed on the CERCLIS list is located within one-half mile of the subject property.

### **5.1.3 CERCLIS No Further Remedial Action Planned (NFRAP) List**

As of February 1995, CERCLIS facilities designated “No Further Remedial Action Planned” (NFRAP) have been removed from CERCLIS. NFRAP facilities may be facilities where, following an initial investigation, no contamination was found, contamination was removed quickly without the need for the facility to be placed on the NPL, or the contamination was not serious enough to require Federal Superfund action or NPL consideration. EPA has removed approximately 25,000 NFRAP facilities to lift the unintended barriers to the redevelopment of these properties and has archived them as historical records so EPA does not needlessly repeat the investigations in the future. This policy change is part of EPA’s Brownfields Redevelopment Program to help cities, states, private investors, and affected citizens to promote economic redevelopment of unproductive urban sites. The following information was found on the CERCLIS-NFRAP list.

- The subject property does not appear on the CERCLIS-NFRAP list.
- No facility listed on the CERCLIS-NFRAP is located within one-quarter mile of the subject property.

#### **5.1.4 EPA Resource Conservation and Recovery Information System (RCRIS) List**

The Resource Conservation and Recovery Information System (RCRIS) is the EPA database of facilities that generate, transport, treat, store, or dispose of hazardous wastes. Generators and transporters are found on the RCRIS list of Notifiers. Treatment, Storage, and Disposal facilities are found on the RCRIS TSD list and facilities requiring corrective actions are found on the CORRACTS list. The following information was found on the RCRIS List of Notifiers.

- The subject property does not appear on the RCRIS Notifiers (generators/transporters) list.
- No facilities are listed on the RCRIS Large Quantity Generator (LQG) list within one-quarter mile of the subject property.
- Four facilities are listed on the RCRIS Small Quantity Generator (SQG) list within one-quarter mile of the subject property.

The following information was found on the RCRIS-TSD list.

- The subject property does not appear on the RCRIS TSD list.
- No facilities are listed on the RCRIS TSD list within one-half mile of the subject property.

The following information was found on the CORRACTS list.

- The subject property does not appear on the RCRIS CORRACTS list.
- No facilities are listed on the RCRIS CORRACTS list within one mile of the subject property.

EDR improperly identified the location of the Maricopa County Service Facility/Avondale (MCSF/A). The facility, addressed at 936 West Van Buren Road, was located at the northwest corner Van Buren and Dysart Roads, adjacent to the south border of the subject property. The MCSF/A facility is in a direction interpreted to be cross-gradient with respect to groundwater flow direction and down slope with respect to regional topography. The EDR information indicates that the remaining facilities are located between approximately 850 and 1,500 feet to the west and west-northwest, and in a direction MACTEC interprets to be upgradient to cross-gradient with respect to groundwater flow direction. These facilities are down slope to cross slope with respect to regional topography. The EDR report reveals that none of the identified facilities has a reported violation. Based on the hydraulic gradient, the distance between the subject property and the listed facilities, the depth to groundwater, and/or the regulatory status of the listed facilities, it is MACTEC's opinion that the off-site listed RCRIS-SQG facilities pose a low potential for environmental concern.

### **5.1.5 EPA Emergency Response Notification System (ERNS) List**

The EPA Emergency Response Notification System (ERNS) List is a list of hazardous material spills reported to various state and federal agencies. The following information was found on the ERNS list.

- The subject property does not appear on the ERNS list.

## **5.2 STATE OF ARIZONA RECORDS**

The following narratives summarize the ASTM-Standard State List search results.

### **5.2.1 State Superfund Program List (SPL)**

The State of Arizona-equivalent SPL list is representative of the facilities and potential facilities within the jurisdiction of the State Superfund Program. Environmental programs are generally administered by the (ADEQ). The State of Arizona-equivalent SPL list is comprised of the following elements: 1) Water Quality Assurance Revolving Fund (WQARF) Registry Sites; 2) Potential Water Quality Assurance Revolving Fund (WQARF) Registry sites; 3) NPL sites; and 4) Department of Defense sites requiring SPS oversight. The following information was found on the SPL list.

- The subject property does not appear on the SPL list.
- No facilities are listed on the SPL list within one mile of the subject property.

### **5.2.2 State Hazardous Waste Sites (SHWS)**

The State of Arizona-equivalent State Hazardous Waste Site (SHWS) list (also known as ZipACIDS) consists of more than 750 locations subject to investigation under the State of Arizona WQARF and federal CERCLA programs. This list is no longer updated by the State of Arizona. The following information was found on the SHWS list.

- The subject property does not appear on the SHWS list.
- No facilities are listed on the SHWS list within one mile of the subject property.

### **5.2.3 State of Arizona Water Quality Assurance Revolving Funds (WQARF) Sites**

The Arizona WQARF facilities may have actual or potential impacts upon the waters of the state caused by hazardous substances. The following information was found on the WQARF list.

- The subject property does not appear on the WQARF list.
- No facilities are listed on the WQARF list within one mile of the subject property.

#### **5.2.4 ADEQ Directory of Solid Waste Facilities/Landfill Sites List**

The ADEQ maintains the Solid Waste Facilities/Landfill Sites list (SWF/LF). Records typically contain an inventory of solid waste disposal facilities or landfills in a particular state. The following information was found on the SWF/LF list.

- The subject property does not appear on the SWF/LF list.
- No facilities are listed on the SWF/LF list within one-half mile of the subject property.

#### **5.2.5 ADEQ Leaking Underground Storage Tank (LUST) Incident Reports**

The LUST List is an inventory of reported leaking underground storage tank incidents maintained by ADEQ. The following information was found on the LUST list.

- The subject property does not appear on the LUST list.
- Three facilities are listed on the LUST list within one-half mile of the subject property.

EDR improperly identified the location of the Avondale Maintenance Yard, also listed as the Maricopa County Service Facility/Avondale (MCSF/A). The facility, addressed at 936 West Van Buren Road, was located at the northwest corner Van Buren and Dysart Roads, adjacent to the south border of the subject property. The Avondale Maintenance Yard facility is in a direction interpreted to be cross-gradient with respect to groundwater flow direction and down slope with respect to regional topography. The EDR information indicates that the remaining facilities are located between approximately 850 and 1,500 feet to the west, and in a direction MACTEC interprets to be upgradient to cross-gradient with respect to groundwater flow direction. The three westerly facilities are down slope with respect to regional topography. The EDR report reveals that each of the identified LUST incidents have been categorized with the regulatory status of “closed, soil level meets Tier 1” requirements. Based on the hydraulic gradient, the distance between the subject property and the listed facilities, the depth to groundwater, and the regulatory status of the listed facilities, it is MACTEC’s opinion that the off-site listed LUST facilities pose a low potential for environmental concern.

### **5.2.6 State Registered Underground Storage Tanks (UST) and Indian USTs**

USTs are regulated under Subtitle 1 of the Resource Conservation and Recovery Act (RCRA) and must be registered with the state department responsible for administering the UST program. The UST list is maintained by the ADEQ. The Indian UST list is a listing of underground storage tanks located on Indian land and registered with the Federal EPA for Region 9 of the United States. The UST listing results are summarized below.

- The site did not appear on the UST List.
- EDR identified one facility on the UST List on adjacent properties.
- EDR identified three facilities on the UST List within one-quarter mile of the subject property.

EDR improperly identified the location of the Avondale Maintenance Yard, also listed as the Maricopa County Service Facility/Avondale (MCSF/A). The facility, addressed at 936 West Van Buren Road, was located at the northwest corner Van Buren and Dysart Roads, adjacent to the south border of the subject property. The EDR information indicates that the facility is located approximately 850 feet to the west, and in a direction MACTEC interprets to be upgradient to cross-gradient with respect to groundwater flow direction. The westerly located facility is down slope with respect to regional topography. The EDR report indicates that USTs have been closed. The facility was identified as a LUST site, but the incident has been categorized with the regulatory status of “closed, soil level meets Tier 1” requirements. Based on the hydraulic gradient, the distance between the subject property and the listed facilities, the depth to groundwater, and the regulatory status of the listed facility, it is MACTEC’s opinion that the off-site listed UST facility poses a low potential for environmental concern.

#### **4.2.3 Voluntary Cleanup Program (VCP) List, dated March 2, 2004**

The Voluntary Cleanup Program (VCP) list identifies low threat level properties with either confirmed or unconfirmed releases and the responsible parties have requested that ADEQ oversee the investigation and/or cleanup activities and have agreed to cover ADEQ's costs.

- The site did not appear on the VCP list.
- No facilities were identified on the VCP list within one-half mile of the subject property.

### **5.3 NON-ASTM-STANDARD LISTS**

The following narratives summarize Non-ASTM-Standard Federal and Non-ASTM-Standard State List search results.

#### **5.3.1 Non-ASTM-Standard Federal List Search Results**

##### **Environmental Liens**

The EPA, under CERCLA of 1980, is granted the authority to file liens against real property in order to recover remedial action expenditures. EDR reviews an EPA list of filed notices of environmental liens and reports whether or not the subject site is listed.

- EDR reported no Environmental Liens against the subject property.

##### **Mines**

The Mines Master File Index (Mines) list is maintained by the United States Department of Labor, Mine Safety and Health Administration. The following information was found on the MINES list.

- The site did not appear on the Mines List.
- EDR identified no facilities on the Mines List on adjacent properties.
- EDR identified one facility on the Mines List within one-quarter mile of the subject property.

EDR identified the Calmat of Arizona mine site approximately 1,200 feet east of the subject site in the Agua Fria River bottom. Information provided by EDR indicates the Calmat facility was registered as a non-coal mining facility in 1990. No further information was provided by EDR. Based on the location of



the facility and local experience, it is likely the former Calmat of Arizona facility was a sand and gravel operation. Based on the nature of the facility, topographic gradient, the distance between the subject property and the listed facilities, the depth to groundwater, and that the subject property does not use untreated groundwater pumped from beneath the subject property, it is MACTEC's opinion that the off-site listed MINES facility poses a low potential for environmental concern.

### **5.3.2 Non-ASTM-Standard State List Search Results**

#### **Drywells**

A drywell is a bored, drilled, or driven shaft or hole whose depth is greater than its width and is designed and constructed specifically for the disposal of storm water. Within Arizona, all drywells are required to be registered with the ADEQ. The ADEQ regulates drywells due to the potential for contaminant migration to the subsurface through drywells. Aquifer Protection Permits and/or spill containment and management plans may be required if hazardous materials are loaded, stored, transported, and/or used in areas where surface water runoff drains to a drywell. A review of the ADEQ-registered drywell database revealed the following.

- No drywells are listed for the subject property.

### **5.3.3 Former Manufactured Gas (Coal Gas) Sites**

The existence and location of coal gas sites is provided to EDR by Real Property Scan, Inc., copyright 1993.

- The site did not appear as a coal gas site.
- EDR identified no coal gas sites within one mile of the subject property.

## **5.4 LOCAL AGENCY CONTACTS**

MACTEC has submitted a file search request to the Avondale Fire Department to obtain general environmental information regarding the subject property and the immediately surrounding vicinity. MACTEC has not received a response as of the issuance of this report. Based on information obtained from the regulatory list search, MACTEC does not anticipate that additional information from the fire department would alter our findings in this report. However, if information is received that would alter our conclusions or recommendations, a letter addendum to this report will be issued.

## **5.5 ORPHAN SITE LIST**

The orphan or unmapped facility list consists of facilities with poor address quality, usually without zip code information. However, if street addresses are available, these facility locations are checked against the known vicinity of the subject property to evaluate if they are located within the applicable ASTM search distances.

The EDR information indicates that the Avondale Service Center, located at 10<sup>th</sup> Street and Van Buren, was identified as a RCRIS-SQG on the Orphan Site list. This facility was discussed in previous sections of this report under the facility names Maricopa County Service Facility/Avondale and Avondale Maintenance Yard in a direction MACTEC interprets to be cross-gradient with respect to groundwater flow direction and down slope with respect to regional topography. Based on the hydraulic and topographic gradients, the regulatory status of the facility, and the depth to groundwater, it is MACTEC's opinion that the Avondale Service Center facility poses a low potential for environmental concern.

The remaining orphan sites identified to be within the applicable ASTM search distances, Walgreen's Store 1589 and Coldwater Plaza Site Development, are based on the hydraulic gradient, the distance between the subject property and the listed facilities, the depth to groundwater, and the nature of the listings, considered to pose a low potential for environmental concern.

Based on our knowledge of the area, no other orphan or unmapped facilities appear to be associated with the subject property.

## **6.0 SITE AND AREA RECONNAISSANCE**

Mr. Patrick Cook, an environmental professional from MACTEC experienced in environmental site assessments, conducted the site and area reconnaissance on December 30, 2004. The site reconnaissance was conducted on foot. MACTEC was unaccompanied during the site visit. Copies of photographs are provided in Appendix A.

### **6.1 PROPERTY DESCRIPTION**

Section 6.1 provides a general property description which includes property improvements, structures, use, and other observed general features which may relate to environmental conditions. Sections 6.1.1 through 6.1.16 summarize items specifically assessed by MACTEC due to their common association with recognized environmental conditions (as defined by ASTM).

The subject property is a rectangular-shaped, approximately 2.45-acre land parcel. The subject property is generally undeveloped land excepting a sewer manway and an approximately 5 cubic yard soil and debris pile observed on the subject property near the west central property border and a pad-mounted transformer. No buildings exist on the land parcel making up the subject property.

The following paragraphs summarize items specifically assessed by MACTEC due to their common association with recognized environmental conditions (as defined by ASTM).

#### **6.1.1 Underground/Aboveground Storage Tanks**

MACTEC did not observe aboveground storage tanks (ASTs) or observe evidence of underground storage tanks (USTs), or receive information which indicated the potential presence of ASTs or USTs.

#### **6.1.2 Chemicals, Petroleum Products, or Hazardous Substances and Waste**

MACTEC did not observe chemical containers, petroleum product containers, nor hazardous substances and/or hazardous waste containers on the subject property. MACTEC did not observe indications of hazardous material dumping onto the ground surface.

#### **6.1.3 Solid Waste**

No visible indications of solid waste landfill activities were observed during our on-site reconnaissance and no evidence of previous solid waste landfill activities was discovered or reported during our historical and regulatory research of the site.

#### **6.1.4 PCB-Containing Fluids**

Electrical transformers are often a source of environmental concern due to the potential presence of polychlorinated biphenyl (PCB) containing cooling oils used in some units.

During our site reconnaissance, MACTEC observed one pad mounted electrical transformer near the eastern border on the subject property. MACTEC did not observe oil releases from the unit. MACTEC understands that Arizona Public Service (APS) is the owning utility. Based on previous information obtained by MACTEC, from APS, we understand that APS would provide remedial actions for PCB-containing fluids released from an APS-owned utility. Based on this information, and our observation of no apparent fluid releases from the on-site units, it is MACTEC's opinion that a low potential exists for environmental impact to the subject property due to the presence of pad-mounted electrical transformers.

#### **6.1.5 Water Supply/Utilities**

MACTEC understands that the subject property would be supplied with potable water from the municipal water supply. MACTEC did not observe indications of on-site water wells, nor did MACTEC review information which indicated the past presence of on-site water wells.

MACTEC did not observe indications that heating or cooling mechanical systems had been constructed at the subject property. MACTEC did not observe indications of heating, cooling, or other utilities fueled by coal, coal gas, fuel oil, diesel fuel, etc. at the subject property. MACTEC did not observe bulk storage of liquid fuel products at the subject property.

#### **6.1.6 Wastewater**

MACTEC understands that the municipal wastewater system is available to the subject property for off-site treatment and disposal. MACTEC did not observe indications of on-site septic systems, nor did MACTEC review information which indicated the past presence of on-site septic systems.

#### **6.1.7 Oil and Gas Wells**

No evidence of oil or gas wells or related activities was reported or noted on the subject property.

#### **6.1.8 Pits, Ponds, Lagoons, and Sumps**

No pits, ponds, lagoons, or sumps associated with industrial waste or wastewater activities were observed on the subject property.

#### **6.1.9 Dry Cleaning Facilities**

Dry cleaning operations are frequently sources of recognized environmental conditions due to the chlorinated solvents used in the cleaning process. No evidence of dry cleaning operations was observed on or adjacent to the subject property.

#### **6.1.10 Stressed Vegetation and Soil Staining**

No areas of stressed vegetation or soil staining were observed which could be attributed to obvious dumping or discharge of wastes or chemicals.

#### **6.1.11 Surface Staining and Corrosion**

No areas of surface staining, corroded pavement, or stained or corroded drain openings were observed which could be attributed to obvious dumping or discharge of wastes or chemicals.

#### **6.1.12 Odors**

No obvious chemical odors were encountered on the subject property.

#### **6.1.13 Hydraulic Equipment**

Due to the potential that equipment containing hydraulic oil may also be PCB-containing, MACTEC's assessment also included observation for obvious equipment with significant quantities of hydraulic oil. MACTEC did not observe hydraulic-oil containing equipment at the subject property.

#### **6.1.14 Contracted Maintenance Services**

MACTEC did not observe indications of contracted maintenance services to the premises.

#### **6.1.15 Other Observations**

MACTEC did not observe other activities or items that would adversely impact the soil and groundwater underlying the subject property.

### **6.2 AREA RECONNAISSANCE**

The area reconnaissance was performed to assist in evaluating if adjacent land uses have or could have contaminated the site. The area reconnaissance was conducted by touring the area by automobile on public rights-of-way. The findings of our area reconnaissance will be discussed according to the geographic relation to the site: north, east, south, and west.

### **6.2.1 North**

Properties to the north are interpreted by MACTEC to be generally hydraulically cross-gradient and topographically upgradient with respect to surface water flow and groundwater flow, respectively, in relation to the subject property. The property is bound on the north by a fenced storm water retention basin and by a City of Avondale municipal water well.

### **6.2.2 East**

Properties to the east are interpreted by MACTEC to be generally topographically cross-gradient with respect to surface water flow and hydraulically up-gradient with respect to groundwater flow at depth. Eliseo C. Felix Jr. Way borders the subject property to the east. Beyond Eliseo C. Felix Jr. Way is undeveloped land and Nina Construction Supply.

### **6.2.3 South**

Properties to the south are interpreted by MACTEC to be topographically down gradient with respect to surface water flow and hydraulically cross-gradient with respect to groundwater flow at depth. The property is bound on the south by an additional generally vacant land parcel, Maricopa Assessors parcel no. 500-02-016Y.

### **6.2.4 West**

Properties to the west are interpreted by MACTEC to be topographically cross-gradient with respect to surface water flow and hydraulically down-gradient with respect to groundwater flow at depth. The property is bound on the west by a large multi-tenant retail development.

## **7.0 FINDINGS, CONCLUSIONS AND RECOMMENDATIONS**

Based on the information reviewed, and MACTEC's observations, MACTEC presents the following findings and conclusions:

- This assessment has revealed no evidence of recognized environmental conditions in relation to the subject property.

Based on MACTEC's findings and conclusions, MACTEC recommends the following actions:

- No additional environmental assessment with respect to ASTM-defined recognized environmental conditions.

## 8.0 LIMITATIONS

The findings and opinions presented are relative to the dates of our site work and should not be relied upon to represent conditions at substantially later dates. The opinions included herein are based upon information obtained during the study and our experience. If additional information becomes available that might impact our environmental conclusions, we request the opportunity to review the information, reassess the potential concerns, and modify our opinions, if warranted. This assessment included a review of documents prepared by others. Therefore, it must be recognized that MACTEC has no responsibility for the accuracy of information contained therein.

Although this assessment has attempted to identify the potential for environmental impacts to the subject property, potential sources of contamination may have escaped detection due to: (1) the limited scope of this assessment; (2) the inaccuracy of public records; (3) the presence of undetected or unreported environmental incidents; (4) inaccessible areas; and/or (5) deliberate concealment of detrimental information. It was not the purpose of this study to determine the actual presence, degree, or extent of contamination, if any, at the site. This could require additional exploratory work, including sampling and laboratory analysis.

ASTM E 1527-00 defines a “recognized environmental condition” as: “the presence or likely presence of any hazardous substances or petroleum products on a property under conditions that indicate an existing release, a past release, or a material threat of a release of any hazardous substances or petroleum products into structures on the property or into the ground, ground water, or surface water of the property.” The term includes hazardous substances or petroleum products even under conditions in compliance with laws. The term is not intended to include *de minimis* conditions that generally do not present a material risk of harm to public health or the environment and that would not be the subject of an enforcement action if brought to the attention of appropriate governmental agencies.



## **FIGURES**

## **APPENDICES**

**APPENDIX A**  
**PHOTOGRAPHS**

**APPENDIX B**

**REGULATORY INFORMATION**

## **APPENDIX C**

### **RESUMES**